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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,110	08/07/2001	Kevin C. Carter	195/13921US03	9738

7590 09/24/2003  
McAndrews, Held & Malloy, Ltd.  
500 West Madison Street, #34  
Chicago, IL 60661

EXAMINER

STEWART, ALVIN J

ART UNIT	PAPER NUMBER
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3738

DATE MAILED: 09/24/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/924,110

Applicant(s)

CARTER ET AL

Examiner

Alvin J Stewart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 12-26, 29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15 & 18. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Election/Restrictions***

Claims 12-26, 29 and 30 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, claim 1 is generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 17.

Applicant's election with traverse of Group I, Species II in Paper No. 17 is acknowledged. The traversal is on the ground(s) that the Examination of Group I and Group II would not represent a serious burden on the Examiner. With respect to the election of species, the Examiner maintains the election of species (I-III). However, the Examiner agrees that claim 1 is generic. The Applicant's argument is not found persuasive because the article does not need to have the tendon naturally attached by the bone plugs. The Examiner needs to find only a bone plug integral to a tendon. The tendon can be attached to the bone plugs by suture, adhesive, etc.

Regarding the election of Species I-III, the Examiner believes the restriction is proper because the structure limitations of the three embodiments are different from each other, as shown by the Applicant's detailed description of the drawings.

The requirement is still deemed proper and is therefore made FINAL.

***Oath/Declaration***

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this Application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

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The oath or declaration is defective because: the filing date of US priority Application Serial Number 09/481,319 is improper. The filing date show as follow: 01/11/2001 and should be as 01/11/2000. Correction is required.

***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "**The disclosure concerns,**" "**The disclosure defined by this invention,**" "**The disclosure describes,**" "**The disclosed herein**" etc.

The disclosure is objected to because of the following informalities: the detailed description of the drawings does not describe figures 2A-2C.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 27 is rejected under 35 U.S.C. 102(e) as being anticipated by Simon et al US Patent 5,951,560.

Simon et al discloses a plurality of bone blocks (49 & 53) shaped into a dowel or taper and attached to a tendon (see col. 1, lines 19-32, the inventor called the ligament a graft) in first and second ends (see Fig. 33). In the Merriam-Webster Dictionary the word “dowel” means the following: a pin fitting into a hole in an abutting piece to prevent motion or slipping. Therefore, the taper bone plugs, as shown in Fig. 33, are interpreted as dowels because they perform the same task.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enzerink et al US Pub. No. 2002/0165611A1 in view of Beck, Jr. et al US Patent 5,961,520.

Enzerink et al discloses a xenograft bone tendon bone graft comprising a plurality of bone plugs (20 & 22), a tendon (12) attached to each end of the bone plugs and a

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fixation screws (66)(see Figs. 1, 8 and 15; page 1, paragraph 4; and page 1 paragraph 7).

However, Enzerink et al does not disclose a groove capable of accommodate a screw.

Beck, Jr. et al discloses an anchoring member (116, see Fig. 3-4) made of bone (see col. 8, lines 4-9) having a threaded profiled groove (117, see Fig. 3, the threaded profile help in the insertion of the threaded member 28) for the purpose of helping the fixation screw (28) attach the plug (116) with the bone tunnel (12) (see col. 9, lines 30-35; col. 9, lines 49-56; and col. 10, lines 1-6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the bone plugs of the Enzerink et al reference with the Beck, Jr. et al reference in order to help the fixation screw attach the plug with the bone tunnel (see col. 9, lines 30-35; col. 9, lines 49-56; and col. 10, lines 1-6).

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enzerink et al US Pub. No. 2002/0165611A1 in view of Beck, Jr. et al US Patent 5,961,520 as applied to claims 1 and 3 above, and further in view of Stone et al US Patent 6,210,440 B1.

Enzerink et al as modify by Beck, Jr. et al discloses the invention substantially as claimed. However, Enzerink et al as modify by Beck, Jr. et al do not disclose that the xenograft is from porcine, bovine, etc.

Stone et al teaches that tendons and ligaments from pigs, cows and other animals are well known to be used in the replacement of human tendons, ligaments, etc for the purpose of being suitable for heterologous transplantation (see col. 1, lines 66-67 and col.

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2, lines 1-4). These types of transplantations are well known used because they are easier to find. Autografts and allografts are difficult to obtain.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Enzerink et al reference with the different types of xenografts, as shown by the Stone et al reference, in order to be suitable for heterologous transplantation.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enzerink et al US Pub. No. 2002/0165611A1 in view of Beck, Jr. et al US Patent 5,961,520 as applied to claim 3 above, and further in view of Simon et al US Patent 5,951,560.

Enzerink et al as modify by Beck, Jr. et al discloses the invention substantially as claimed. However, Enzerink et al as modify by Beck, Jr. et al do not disclose the bone plugs shaped into a dowel.

Simon et al discloses a plurality of bone blocks (49 & 53) shaped into a dowel or taper and attached to a tendon for the purpose of optimizing the threaded engagement of the fixation screws (10 & 30) with the bone tunnel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Enzerink et al reference with the taper (dowel) bone plugs of the Simon et al reference in order to optimize the threaded engagement of the fixation screws with the bone tunnel.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simon et al US Patent 5,951,560 in view of Stone et al US Patent 6,210,440 B1.

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Simon et al discloses the invention substantially as claimed. However, Simon et al does not disclose a xenograft made from porcine, bovine sources.

Stone et al teaches that tendons and ligaments from pigs, cows and other animals are well known to be used in the replacement of human tendons, ligaments, etc for the purpose of being suitable for heterologous transplantation (see col. 1, lines 66-67 and col. 2, lines 1-4). These types of transplantations are well known used because they are easier to find. Autografts and allografts are difficult to obtain.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Simon et al reference with the different types of xenografts, as shown by the Stone et al reference, in order to be suitable for heterologous transplantation.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Stewart whose telephone number is 703-305-0277. The examiner can normally be reached on Monday-Friday 7:00AM-5:30PM(1 Friday B-week off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



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Alvin Stewart

September 19, 2003.



**CORRINE McDERMOTT**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**